

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
17 July 2003 (17.07.2003)

PCT

(10) International Publication Number  
WO 03/058350 A1

(51) International Patent Classification: G03F 7/32

(21) International Application Number: PCT/KR03/00030

(22) International Filing Date: 9 January 2003 (09.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2002-0001773 11 January 2002 (11.01.2002) KR  
10-2002-0053240 4 September 2002 (04.09.2002) KR

(71) Applicant (for all designated States except US): CLARIANT INTERNATIONAL LTD. [CH/CH]; Rothausstrasse 61, CH-4132 Muttensz 1 (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): OH, Sae-Tae

[KR/KR]; 202-301 Dongsung-hyosung apt, Vision-2 dong, Pyongtaek-city 450-728 (KR). KANG, Doek-Man [KR/KR]; 108-402 Dong-A apt, Jamwon-dong 66-3, Seocho-gu, Seoul 137-948 (KR). CHOI, Kyung-Soo [KR/KR]; 227-34 Ojung-Dong, Daeduck-gu, Daejeon 306-818 (KR).

(74) Agent: LEE, Byong-Ho; 5th Fl. Korea Reinsurance Bldg., 80 Soosong-dong, Chongro-ku, P.O.Box 356, Seoul (KR).

(81) Designated States (national): CN, JP, SG, US.

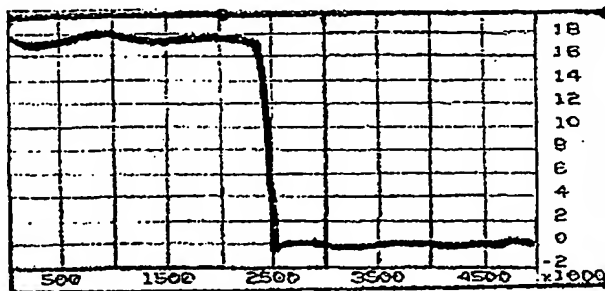
(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR).

Published:

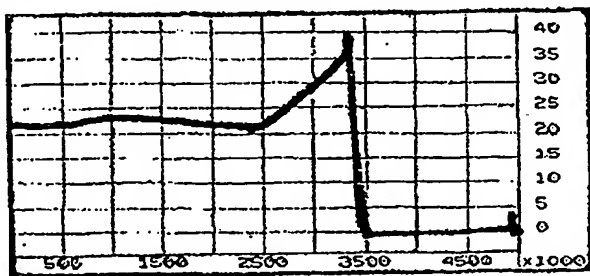
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: A CLEANING AGENT COMPOSITION FOR A POSITIVE OR A NEGATIVE PHOTORESIST



Composition of examples 1 and 2



Composition of comparative example 1

- \* X axis: Distance from the cleaned area (unit: 1nm).
- \* Y axis: Height of the photoresist coating (unit: 0.1μm)

(57) Abstract: The present invention relates to a composition for cleaning a photoresist and is to provide a cleaning composition wherein the residue of the photoresist does not remain on the boundary surface between the cleaned area and the not-cleaned area after a negative photoresist containing pigment is cleaned, soft-baked, exposed and developed. The present invention provides a composition for cleaning a positive or negative photoresist which comprises (a) from 0.1 to 20 wt.% of and alkyl oxide polymer with a molecular weight of from 50 to 2000 and (b) from 80 to 99.9 wt.% of an organic solvent comprising: (b-1) from 1 to 20 parts by weight of dipropylene glycol methyl ether (DPGME), from 10 to 50 parts by weight of N-methyl pyrrolidone (NMP) and from 50 to 90 parts by weight of methyl isobutyl ketone (MIBK), or (b-2) from 10 to 90 parts by weight of dimethyl formaldehyde (DMF) or dimethylacetamide (DMAc) and from 10 to 50 parts by weight of n-butyl acetate.